POWER AMPLIFIER

KAC-859

SERVICE MANUAL

KENWOOD

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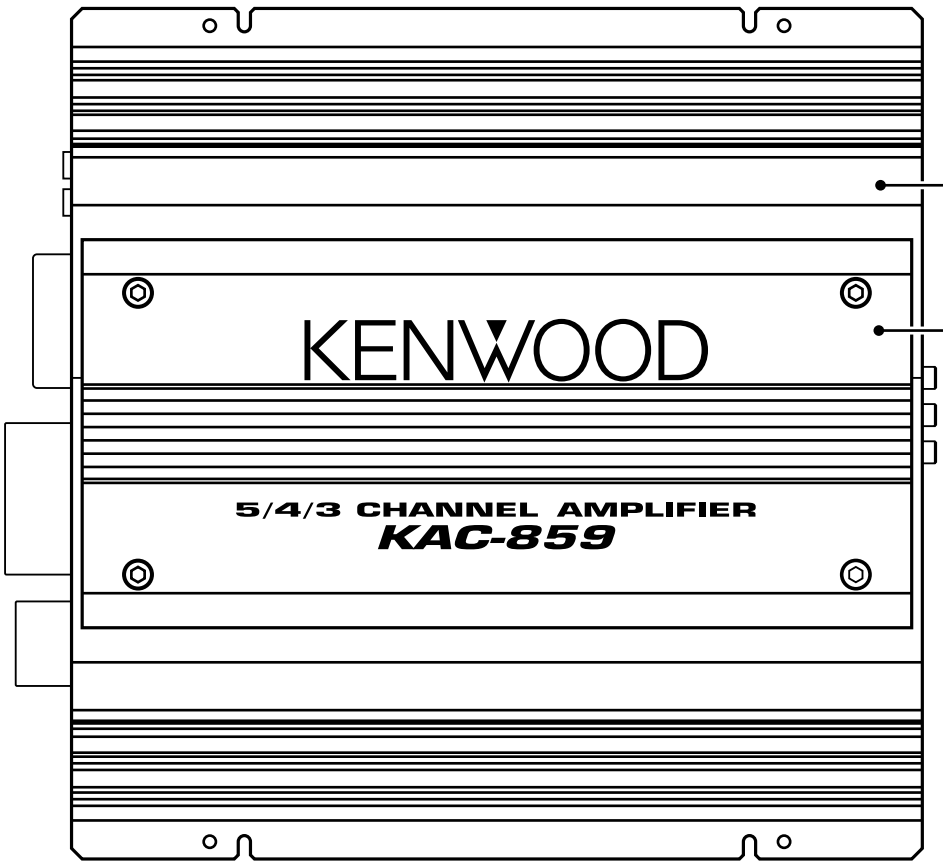
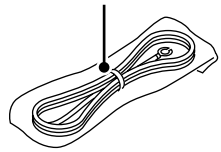
B51-7626-00 (K) 3547



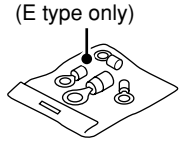
HEAT SINK
(F01-1629-01)

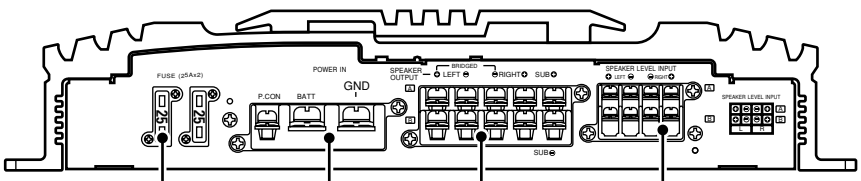
DRESSING PANEL
(A21-4015-02)

DC CORD ASSY
(E30-4341-05)
(J type only)



LEAD TERMINAL SET
(W01-1530-05)
(E type only)





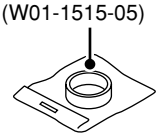
FUSE
(E52-0014-05)

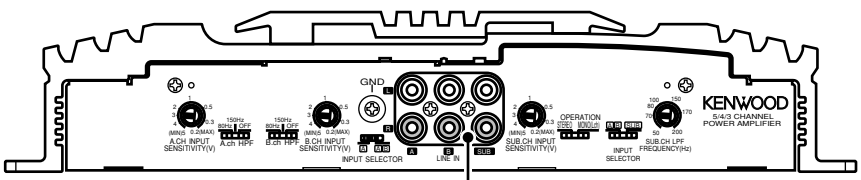
SCREW TERMINAL BOARD
(E70-0828-05)

SCREW TERMINAL BOARD
(E70-0829-05)

SCREW TERMINAL BOARD
(E70-0821-05)

TERMINAL COVER SET
(W01-1515-05)





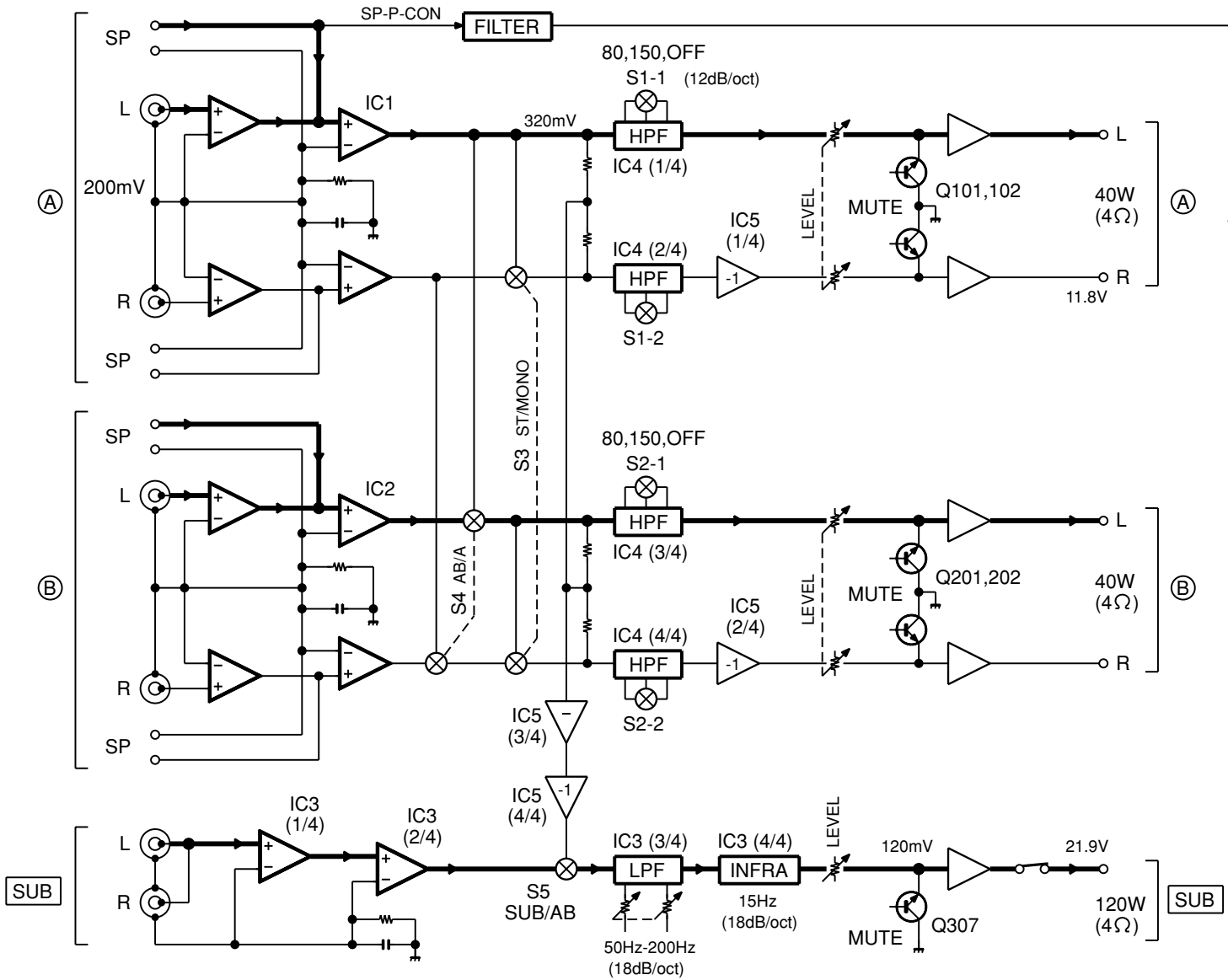
PIN JACK
(E63-0849-05)

SCREW SET
(N99-1587-05)

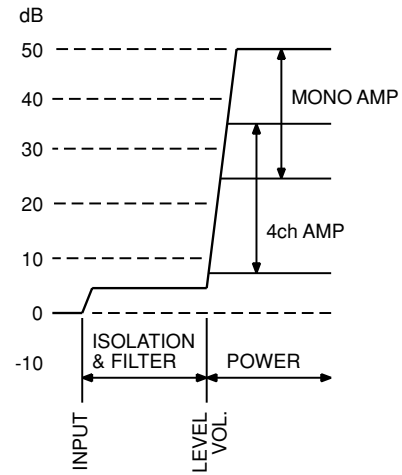
KAC-859

BLOCK DIAGRAM

5 CH AMP. BLOCK DIAGRAM



[LEVEL DIAGRAM]



CIRCUIT DESCRIPTION

SP P-CON Switching Circuit

When the SP output from the head unit is connected to SP IN, the power can be switched ON/OFF based on the DC voltage of the SP output.

However, As certain head unit models output DC permanently or generate a click during switching OFF, it is required to provide the capability of previous P-CON switching.

A circuit which can perform the switching without using a switch is described below.

This circuit performs switching by inhibiting the operation of the S-P-CON circuit when a voltage is applied to the P-CON pin.

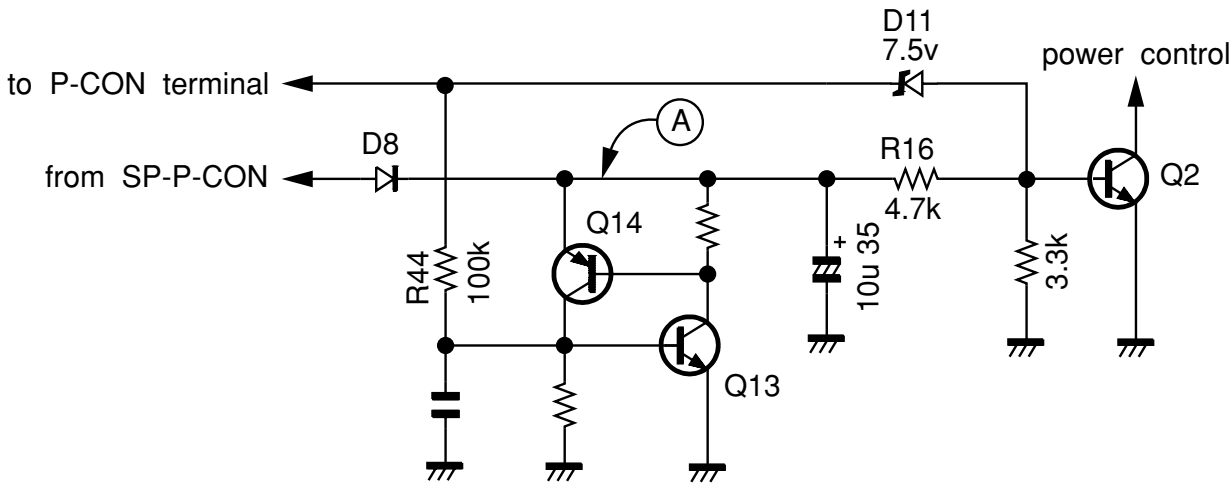
Circuit operation description When the head unit is connected to SP-INN, the DC component in the SP output turns Q2 ON through D8 and R16.

When a voltage is applied to the P-CON pin under this condition, Q13 is turned ON via R44, positive feedback is applied by combination of Q13 and Q14, Q13 and Q14 are held at ON, so the voltage at point (A) is almost 0V and the SP-P-CON circuit is not activated.

This circuit holds the ON status while the DC voltage from SP is present.

Therefore, in this condition, the P-CON circuit continues functioning.

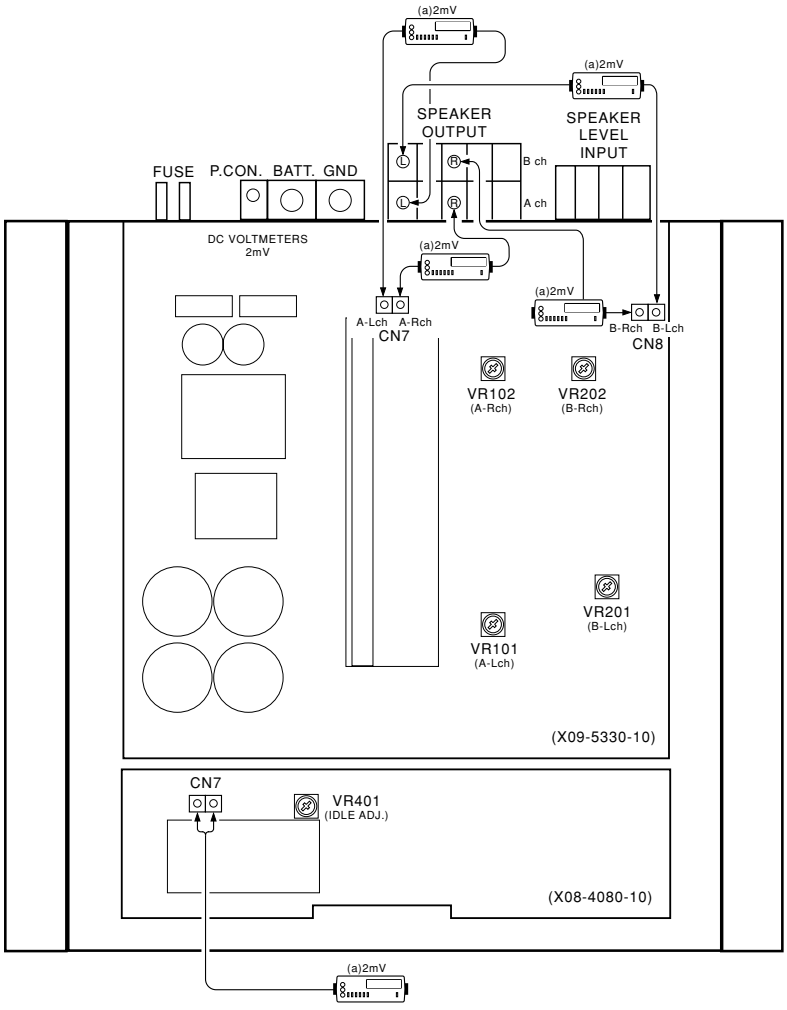
To cancel the functioning, the voltage at the SP-IN pin should go 0V.



ADJUSTMENT

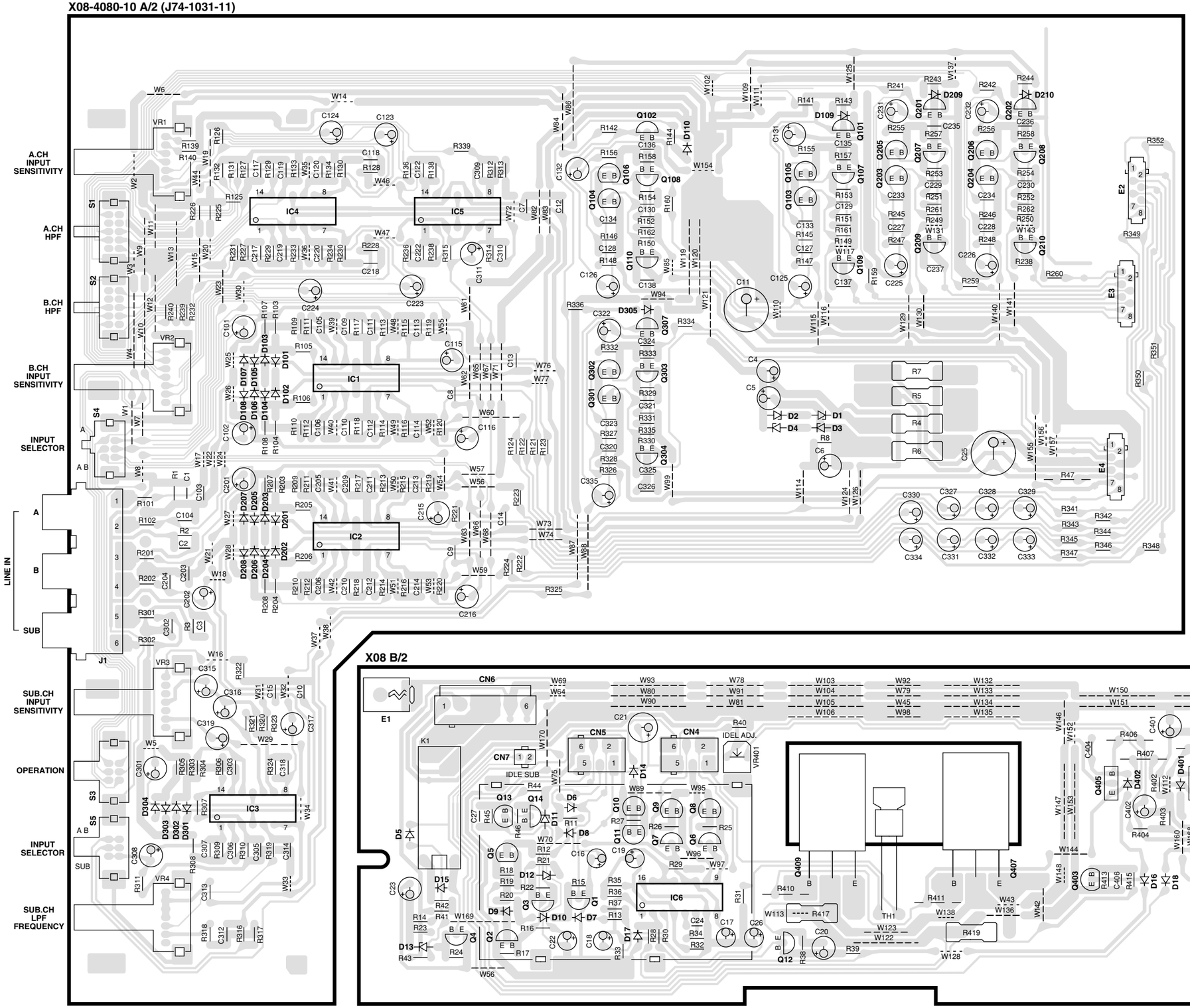
ADJUSTMENT

No	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER (RECEIVER) SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Connect a cassette receiver or other receiver.							
1	IDLE CURRENT	–	Connect a DC voltmeter to CN7/CN8 and J4(SP.OUT, L+/R-) in X09-5330-10 UNIT	Volume : 0	(A) VR101(Lch) VR102(Rch) (B) VR201(Lch) VR202(Rch)	After sufficient aging adjust to 2.0mV	(a)
2	IDLE CURRENT	–	Connect a DC voltmeter to CN7 in X08-4080-10 UNIT	Volume : 0	(SUB) VR401	After sufficient aging adjust to 2.0mV	(a)



PC BOARD (Component side view)

PREAMPLIFIER UNIT
X08-4080-10 A/2 (J74-1031-11)



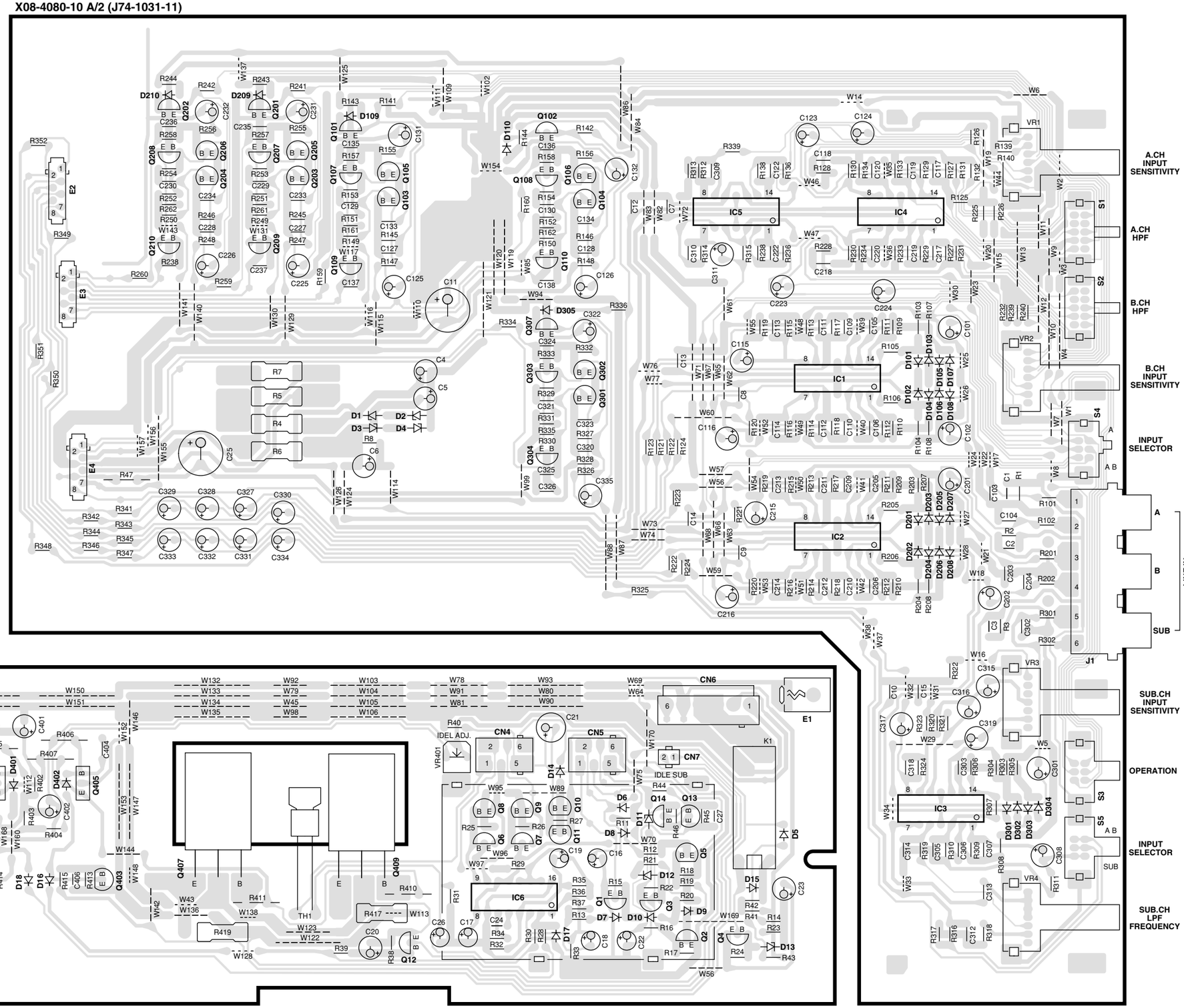
Ref.No.	Address	Ref.No.	Address
IC1	3C	Q108	2E
IC2	4C	Q109	2F
IC3	6C	Q110	2E
IC4	2C	Q201	2G
IC5	2D	Q202	2G
IC6	6E	Q203	2F
Q1	6D	Q204	2G
Q2	6D	Q205	2F
Q3	6D	Q206	2G
Q4	6D	Q207	2G
Q5	6D	Q208	2G
Q6	6E	Q209	2G
Q7	6E	Q210	2G
Q8	6E	Q301	3E
Q9	6E	Q302	3E
Q10	6E	Q303	3E
Q11	6E	Q304	4E
Q12	7F	Q307	3E
Q13	6D	Q401	6I
Q14	6D	Q402	6H
Q101	2F	Q403	6H
Q102	2E	Q404	6H
Q103	2F	Q405	6H
Q104	2E	Q406	6I
Q105	2F	Q407	6G
Q106	2E	Q408	5I
Q107	2F	Q409	6F

Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD (Foil side view)

Ref.No.	Address	Ref.No.	Address
IC1	3R	Q108	2P
IC2	4R	Q109	2O
IC3	6R	Q110	2P
IC4	2R	Q201	2N
IC5	2Q	Q202	2N
IC6	6P	Q203	2N
Q1	6P	Q204	2N
Q2	6Q	Q205	2N
Q3	6Q	Q206	2N
Q4	6Q	Q207	2N
Q5	6Q	Q208	2N
Q6	6P	Q209	2N
Q7	6P	Q210	2N
Q8	6P	Q301	3P
Q9	6P	Q302	3P
Q10	6P	Q303	3P
Q11	6P	Q304	4P
Q12	7O	Q307	3P
Q13	6Q	Q401	6L
Q14	6Q	Q402	6L
Q101	2O	Q403	6M
Q102	2P	Q404	6M
Q103	2O	Q405	6M
Q104	2P	Q406	6L
Q105	2O	Q407	6N
Q106	2P	Q408	5L
Q107	2O	Q409	6O

PREAMPLIFIER UNIT
X08-4080-10 A/2 (J74-1031-11)

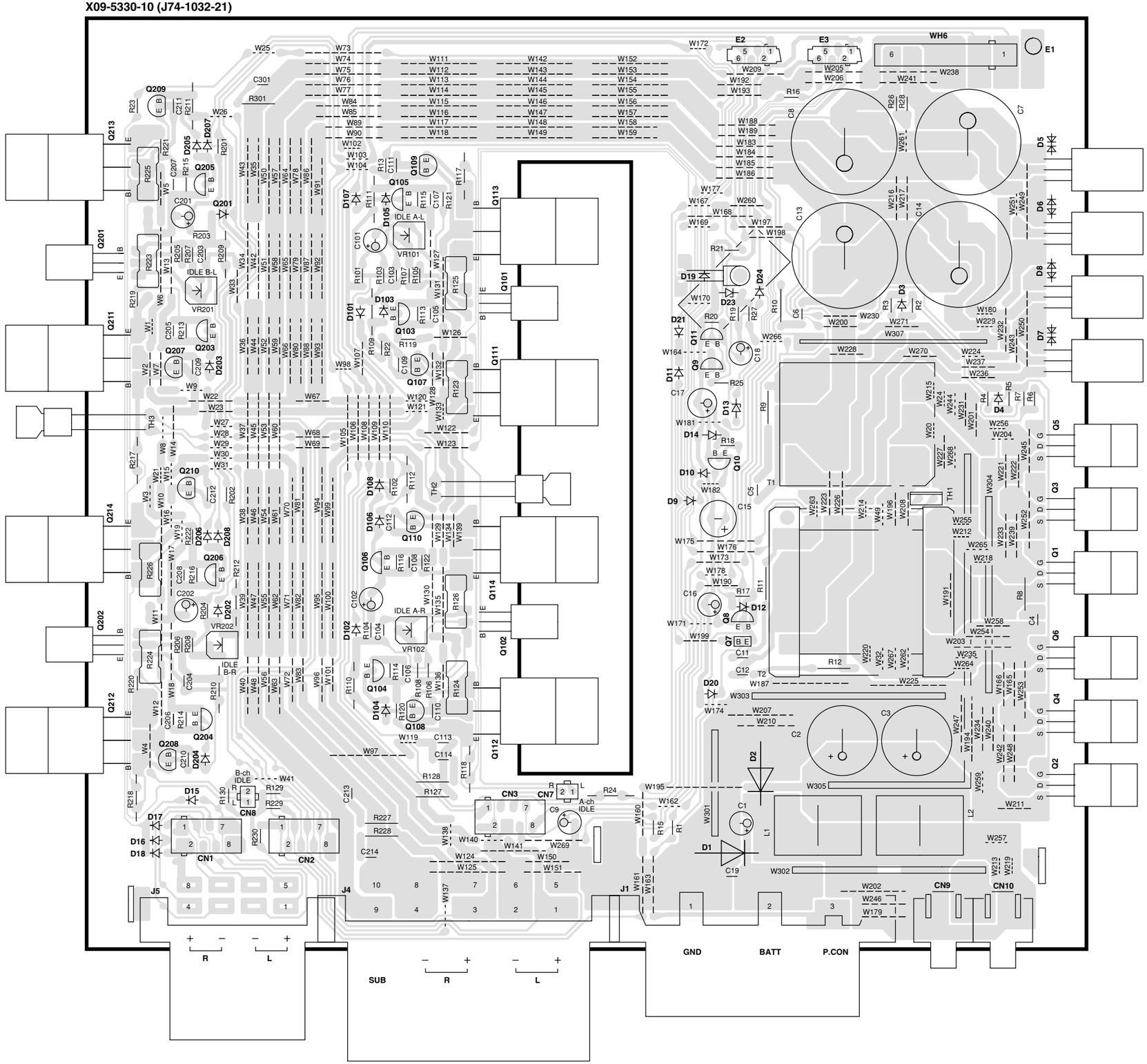


Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD (Component side view)

Ref.No.	Address
Q1	4AB
Q2	5AB
Q3	4AB
Q4	5AB
Q5	3AB
Q6	5AB
Q7	5Z
Q8	4Z
Q9	3Z
Q10	4Z
Q11	3Z
Q101	3Y
Q102	5Y
Q103	3X
Q104	5X
Q105	2X
Q106	4X
Q107	3X
Q108	5X
Q109	2X
Q110	4X
Q111	3Y
Q112	5Y
Q113	2Y
Q114	4Y
Q201	2W
Q202	5W
Q203	3W
Q204	5W
Q205	2W
Q206	4W
Q207	3W
Q208	5W
Q209	2W
Q210	4W
Q211	3W
Q212	5W
Q213	2W
Q214	4W

AUDIO UNIT
X09-5330-10 (J74-1032-21)

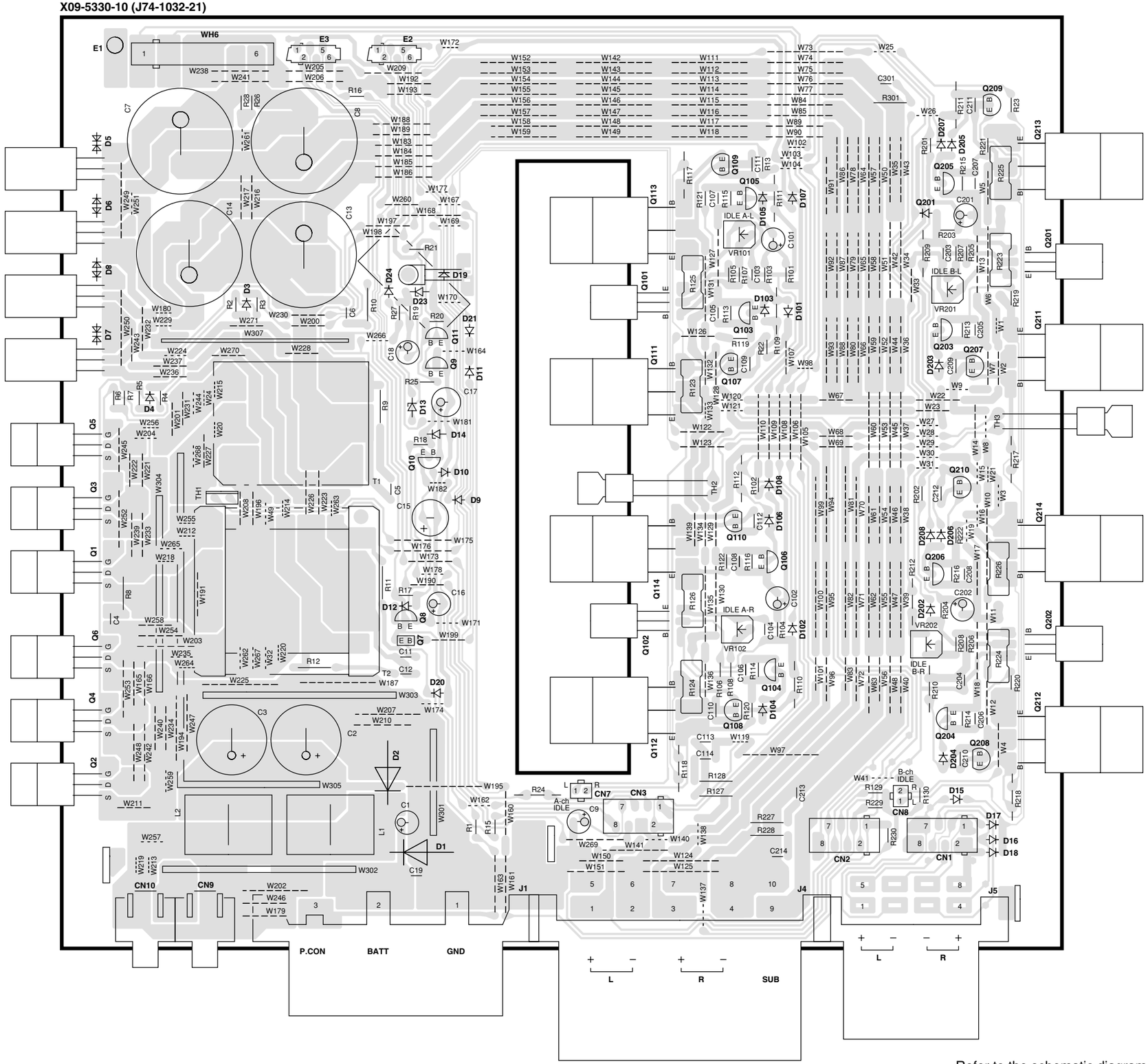


Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD (Foil side view)

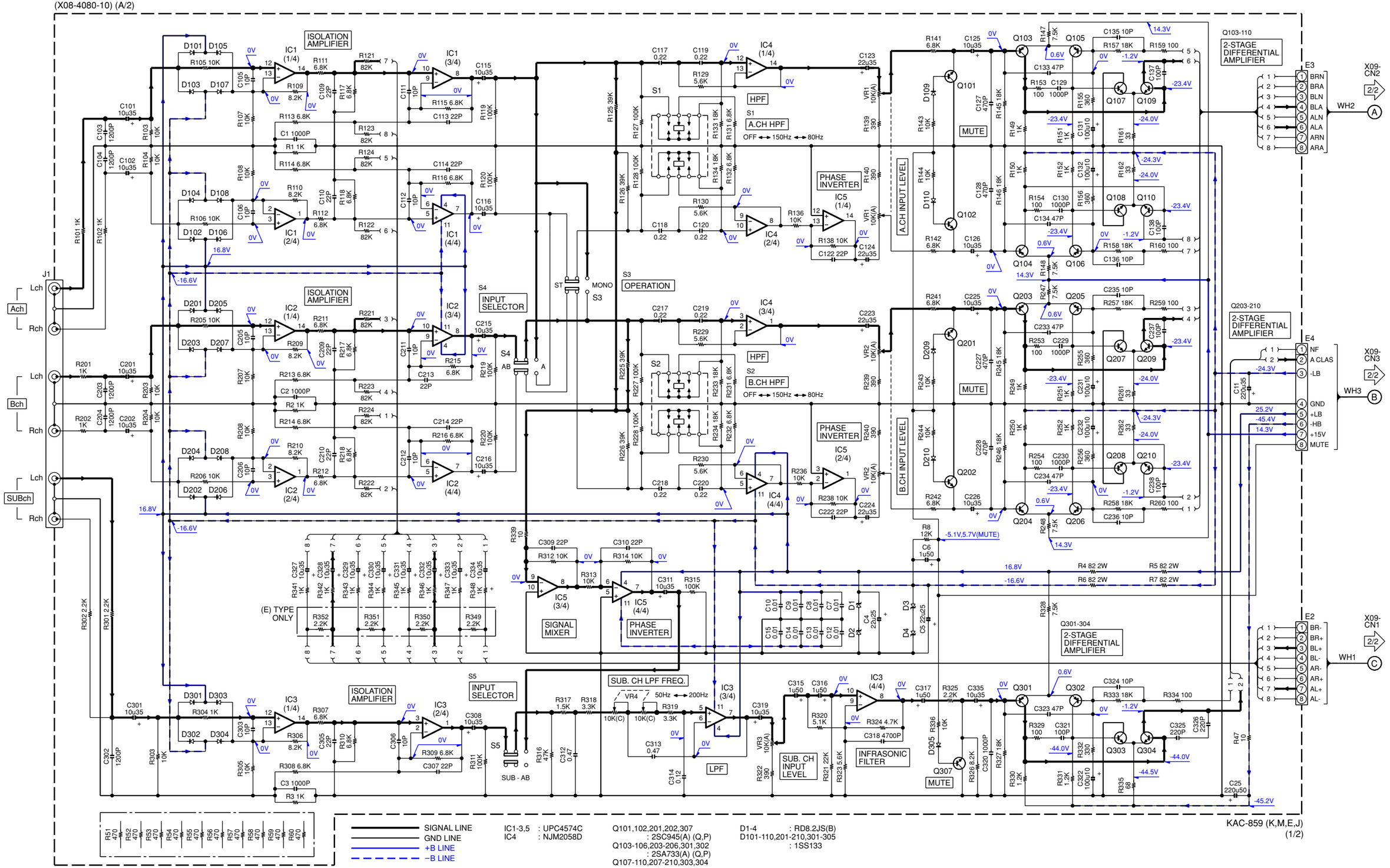
Ref.No.	Address
Q1	4AG
Q2	5AG
Q3	4AG
Q4	5AG
Q5	3AG
Q6	5AG
Q7	5AI
Q8	4AI
Q9	3AI
Q10	4AI
Q11	3AI
Q101	3AJ
Q102	5AJ
Q103	3AJ
Q104	5AK
Q105	2AJ
Q106	4AK
Q107	3AJ
Q108	5AJ
Q109	2AJ
Q110	4AJ
Q111	3AJ
Q112	5AJ
Q113	2AJ
Q114	4AJ
Q201	2AL
Q202	5AL
Q203	3AL
Q204	5AL
Q205	2AL
Q206	4AL
Q207	3AL
Q208	5AL
Q209	2AL
Q210	4AL
Q211	3AL
Q212	5AL
Q213	2AL
Q214	4AL

AUDIO UNIT
X09-5330-10 (J74-1032-21)



Refer to the schematic diagram for the value of resistors and capacitors.

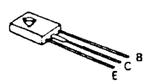
PRE AMPLIFIER UNIT
(X08-4080-10) (A/2)



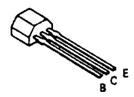
KAC-859 (K,M,E,J)
(1/2)

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

2SA1110
2SC2590



DTA124ESA



2SC4137

KAC-859

KENWOOD

AUDIO UNIT
(X09-5330-10)

PRE AMPLIFIER UNIT
(X08-4080-10) (B/2)

SIGNAL LINE
GND LINE
+B LINE
−B LINE

(X09-5330-10)

Q1-6	: 2SK2897-01MR-F
Q7	: DTA124ESA
Q8-11,103,104,203,204	: 2SC945(A) (Q,P)
Q101,102,201,202	: 2SC4137(V,W)
Q105,106,205,206	: 2SA992(F,E)
Q107,108,207,208	: 2SC1627A
Q109,110,209,210	: 2SA817A
Q111,112,211,212	: 2SC5100LB
Q113,114,213,214	: 2SA1908LB
D1,2	: 1N5406-M
D3,4,9-12,15-18,20,21,24,101-108,201-208	: 1SS133
D5,7	: FML22S∗A
D6,8	: FML22R∗A
D13	: RD5.1JS(B)
D14,23	: RD15JS(B)
D19	: B30-1460-05

(X08-4080-10) (B/2)
IC6 : UPC494C

Q1-4,6,7,12,13,402 : 2SC945(A) (Q,P)
Q5,8-11,14 : 2SA733(A) (Q,P)
Q401 : 2SC4137(V,W)
Q403 : 2SA992(F,E)
Q404 : 2SC2590(Q,R)
Q405 : 2SA1110(Q,R)
Q406,408 : 2SC5100LB
Q407,409 : 2SA1908LB

D5-10,14-18,401,402 : 1SS133
D11,13 : RD7.5JS(B)
D12 : RD16JS(B2)

2SA733(A)
2SA817A
2SA992
2SC1627A
2SC1845

2SC945(A)

NJM2058D

UPC4574C

UPC494C

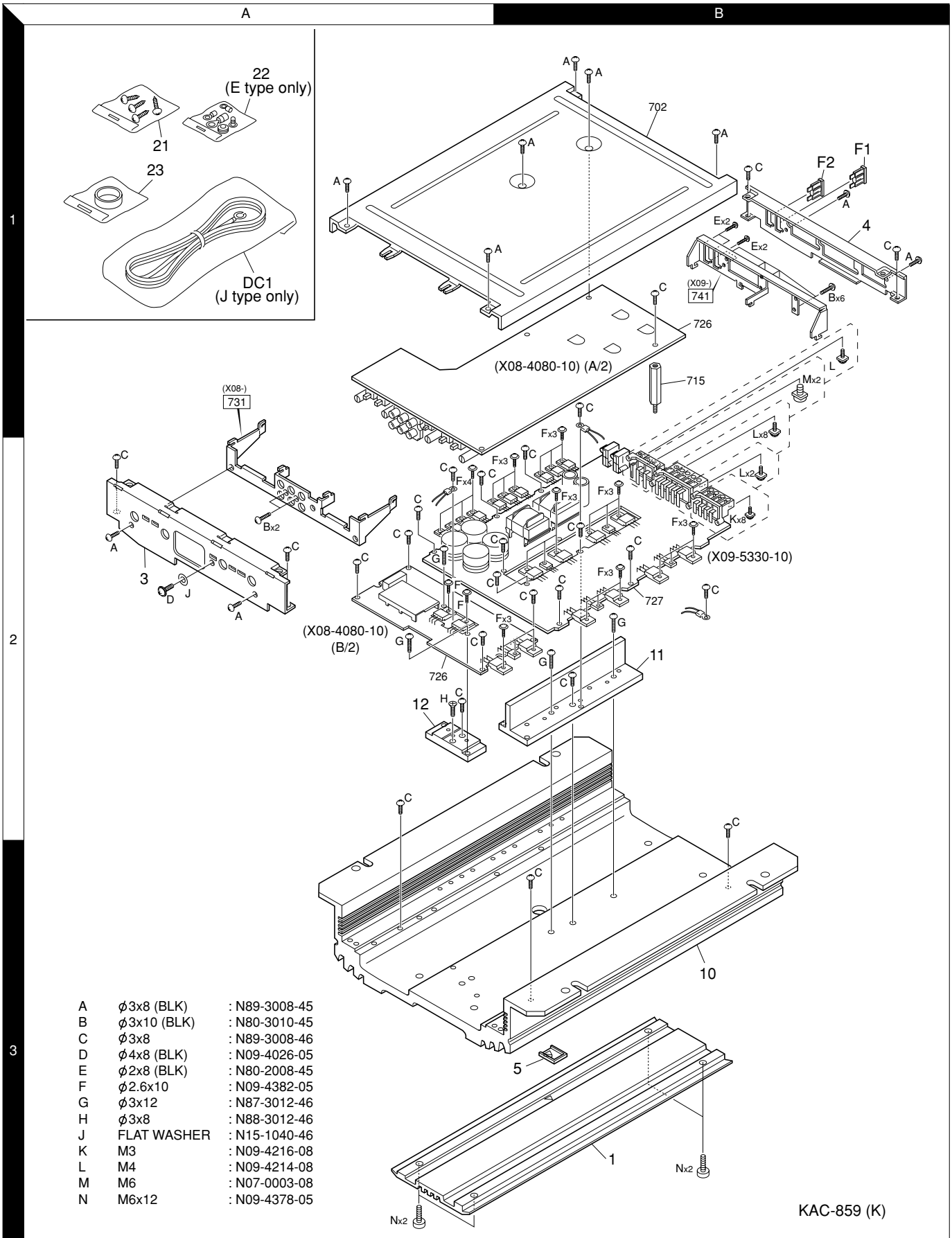
KAC-859 (K,M,E,J)
(2/2)

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KAC-859

KENWOOD

EXPLODED VIEW



A	ϕ3x8 (BLK)	: N89-3008-45
B	ϕ3x10 (BLK)	: N80-3010-45
C	ϕ3x8	: N89-3008-46
D	ϕ4x8 (BLK)	: N09-4026-05
E	ϕ2x8 (BLK)	: N80-2008-45
F	ϕ2.6x10	: N09-4382-05
G	ϕ3x12	: N87-3012-46
H	ϕ3x8	: N88-3012-46
J	FLAT WASHER	: N15-1040-46
K	M3	: N09-4216-08
L	M4	: N09-4214-08
M	M6	: N07-0003-08
N	M6x12	: N09-4378-05

KAC-859 (K)

Parts with exploded numbers larger than 700 are not supplied.

KAC-859

PARTS LIST

✻ New Parts
Parts without **Parts No.** are not supplied.

Ref.No.	Add	New	Parts No.	Description	Destination
			KAC-859		
1	3B	✻	A21-4015-02	DRESSING PANEL	
3	2A	✻	A64-1979-02	PANEL	
4	1B	✻	A84-0229-02	REAR PANEL	
5	3B	✻	B19-2024-04	LIGHTING BOARD	
-			B46-0100-50	WARRANTY CARD	E1M1K
-			B46-0191-03		J
-			B59-0090-00		J
-		✻	B64-1662-00	INST.MANUAL (ENG,FRE,SPA)	K
-		✻	B64-1663-00	INST.MANUAL (ENG,FRE,GER,DUT)	E1
-		✻	B64-1663-00	INST.MANUAL (ITA,SPA,POR)	E1
-		✻	B64-1664-00		J
-		✻	B64-1665-00	INST.MANUAL (ENG,CHI)	M1
⚠ DC1	1A		E30-4341-05		J
10	3B	✻	F01-1629-01	HEAT SINK	
11	2B	✻	F01-1630-03	HEAT SINK	
12	2A	✻	F01-1631-03	HEAT SINK	
⚠ F1,F2	1B	✻	F52-0014-05	FUSE(BLADE TYPE) (25A)	
-			H10-4642-03	POLYSTYRENE FOAMED FIXTURE	
-			H10-4642-03		
-		✻	H11-1521-04	POLYSTYRENE FORMED BOARD	
-		✻	H11-1521-04		
-			H21-1117-04	PROTECTION SHEET	
-			H21-1117-04		
-			H25-0336-04	PROTECTION BAG (170X250X0.03)	
-			H25-0336-04	(170X250X0.03)	
-		✻	H54-1648-03	ITEM CARTON CASE	
-		✻	H54-1648-03		
21	1A		N99-1587-05	SCREW SET	
A	1B		N89-3008-45	BINDING HEAD TAPTITE SCREW	
C	2B		N89-3008-46	BINDING HEAD TAPTITE SCREW	
D	2A		N09-4026-05	TAPPING SCREW (4X8,TP,S)	
F	2B	✻	N09-4382-05	TAPTITE SCREW (2.6X10)	
G	2B		N87-3012-46	BRAZIER HEAD TAPTITE SCREW	
H	2A	✻	N88-3012-46	FLAT HEAD TAPTITE SCREW	
J	2A		N15-1040-46	FLAT WASHER (4)	
K	1B		N09-4216-08	SCREW	
L	1B		N09-4214-08	SCREW	
M	1B		N07-0003-08	SCREW	
N	3A	✻	N09-4378-05	DRESSED SCREW (M6X12)	
⚠ 22	1A	✻	W01-1530-05	LEAD TERMINAL SET	E1
23	1A	✻	W01-1515-05	TERMINAL COVER SET	
			PREAMPLIFIER UNIT(X08-4080-10)		
C1 -3			CF92FV1H102J	MF-C 1000PF J	
C4 ,5			CE04DW1E220M	ELECTRO 22UF 25WV	
C6			CE04DW1H010M	ELECTRO 1.0UF 50WV	
C7 -10			CK45FF1H103Z	CERAMIC 0.010UF Z	
C11			C90-2707-05	ELECTRO 220UF 35WV	
C12 -15			CK45FF1H103Z	CERAMIC 0.010UF Z	
C16 ,17			CE04NW1V100M	ELECTRO 10UF 35WV	
C18			CE04NW1H010M	ELECTRO 1.0UF 50WV	
C19			CE04NW1V100M	ELECTRO 10UF 35WV	

Ref.No.	Add	New	Parts No.	Description	Destination
C20			CE04DW1A101M	ELECTRO 100UF 10WV	
C21			CE04DW1A221M	ELECTRO 220UF 10WV	
C22			CE04NW1V100M	ELECTRO 10UF 35WV	
C23			CE04NW1E470M	ELECTRO 47UF 25WV	
C24			CF92FV1H102J	MF-C 1000PF J	
C25			C90-2726-05	ELECTRO 220UF 50WV	
C26			CE04NW1H010M	ELECTRO 1.0UF 50WV	
C27			CF92FV1H102J	MF-C 1000PF J	
C101,102			CE04DW1V100M	ELECTRO 10UF 35WV	
C103,104			CK45FB1H122K	CERAMIC 1200PF K	
C105,106			CC45FSL1H100D	CERAMIC 10PF D	
C109,110			CC45FSL1H220J	CERAMIC 22PF J	
C111,112			CC45FSL1H100D	CERAMIC 10PF D	
C113,114			CC45FSL1H220J	CERAMIC 22PF J	
C115,116			CE04DW1V100M	ELECTRO 10UF 35WV	
C117-120			CF92FV1H224J	MF-C 0.22UF J	
C122			CC45FSL1H220J	CERAMIC 22PF J	
C123,124			CE04DW1V220M	ELECTRO 22UF 35WV	
C125,126			CE04DW1V100M	ELECTRO 10UF 35WV	
C127,128			CC45FSL1H471J	CERAMIC 470PF J	
C129,130			CF92FV1H102J	MF-C 1000PF J	
C131,132			CE04DW1A101M	ELECTRO 100UF 10WV	
C133,134			CC45FSL1H470J	CERAMIC 47PF J	
C135,136			CC45FSL1H100D	CERAMIC 10PF D	
C137,138			CC45FSL1H101J	CERAMIC 100PF J	
C201,202			CE04DW1V100M	ELECTRO 10UF 35WV	
C203,204			CK45FB1H122K	CERAMIC 1200PF K	
C205,206			CC45FSL1H100D	CERAMIC 10PF D	
C209,210			CC45FSL1H220J	CERAMIC 22PF J	
C211,212			CC45FSL1H100D	CERAMIC 10PF D	
C213,214			CC45FSL1H220J	CERAMIC 22PF J	
C215,216			CE04DW1V100M	ELECTRO 10UF 35WV	
C217-220			CF92FV1H224J	MF-C 0.22UF J	
C222			CC45FSL1H220J	CERAMIC 22PF J	
C223,224			CE04DW1V220M	ELECTRO 22UF 35WV	
C225,226			CE04DW1V100M	ELECTRO 10UF 35WV	
C227,228			CC45FSL1H471J	CERAMIC 470PF J	
C229,230			CF92FV1H102J	MF-C 1000PF J	
C231,232			CE04DW1A101M	ELECTRO 100UF 10WV	
C233,234			CC45FSL1H470J	CERAMIC 47PF J	
C235,236			CC45FSL1H100D	CERAMIC 10PF D	
C237,238			CC45FSL1H101J	CERAMIC 100PF J	
C301			CE04DW1V100M	ELECTRO 10UF 35WV	
C302			CK45FB1H122K	CERAMIC 1200PF K	
C303			CC45FSL1H100D	CERAMIC 10PF D	
C305			CC45FSL1H220J	CERAMIC 22PF J	
C306			CC45FSL1H100D	CERAMIC 10PF D	
C307			CC45FSL1H220J	CERAMIC 22PF J	
C308			CE04DW1V100M	ELECTRO 10UF 35WV	
C309,310			CC45FSL1H220J	CERAMIC 22PF J	
C311			CE04DW1V100M	ELECTRO 10UF 35WV	
C312,313			CF92FV1H474J	MF-C 0.47UF J	
C314			CF92FV1H124J	MF-C 0.12UF J	
C315-317			CE04DW1H010M	ELECTRO 1.0UF 50WV	
C318			CF92FV1H472J	MF-C 4700PF J	

K : North America **E1**: Europe **J**: Japan
M1: Other Areas

⚠ indicates safety critical components.

PARTS LIST

✻ New Parts
Parts without Parts No. are not supplied.

Ref.No.	Add	New	Parts No.	Description	Destination
C319			CE04DW1V100M	ELECTRO 10UF 35WV	
C320			CF92FV1H102J	MF-C 1000PF J	
C321			CC45FSL1H101J	CERAMIC 100PF J	
C322			CE04DW1A101M	ELECTRO 100UF 10WV	
C323			CC45FSL1H470J	CERAMIC 47PF J	
C324			CC45FSL1H100D	CERAMIC 10PF D	
C325,326			CC45FSL1H221J	CERAMIC 220PF J	
C327-335			CE04DW1V100M	ELECTRO 10UF 35WV	
C401			CE04DW1H220M	ELECTRO 22UF 50WV	
C402			CE04DW1V100M	ELECTRO 10UF 35WV	
C403,404			CC45FSL1H101J	CERAMIC 100PF J	
C405,406			CF92FV1H472J	MF-C 4700PF J	
CN4 ,5			E40-4296-05	FLAT CABLE CONNECTOR (6P)	
CN6			E40-3668-05	PIN ASSY (6P)	
CN7			E40-3640-05	PIN ASSY (2P)	
J1			E63-0849-05	PIN JACK (6P)	
B	2A		N80-3010-45	PAN HEAD TAPTITE SCREW	
R1 -3			RD14BB2C102J	RD 1.0K J 1/6W	
R4 -7			RS14KB3D820J	FL-PROOF RS 82 J 2W	
R8			RD14BB2C123J	RD 12K J 1/6W	
R11 ,12			RD14BB2C681J	RD 680 J 1/6W	
R13			RD14BB2C103J	RD 10K J 1/6W	
R14			RD14BB2C101J	RD 100 J 1/6W	
R15			RD14BB2C103J	RD 10K J 1/6W	
R16			RD14BB2C472J	RD 4.7K J 1/6W	
R17			RD14BB2C332J	RD 3.3K J 1/6W	
R18 ,19			RD14BB2C152J	RD 1.5K J 1/6W	
R20			RD14BB2C333J	RD 33K J 1/6W	
R21			RD14BB2C332J	RD 3.3K J 1/6W	
R22			RD14BB2C152J	RD 1.5K J 1/6W	
R23			RD14BB2C104J	RD 100K J 1/6W	
R24			RD14BB2C223J	RD 22K J 1/6W	
R25 ,26			RD14BB2C152J	RD 1.5K J 1/6W	
R27			RD14BB2C103J	RD 10K J 1/6W	
R28			RD14BB2C473J	RD 47K J 1/6W	
R29			RD14BB2C102J	RD 1.0K J 1/6W	
R30			RD14BB2C103J	RD 10K J 1/6W	
R31			RD14BB2C224J	RD 220K J 1/6W	
R32			RD14BB2C681J	RD 680 J 1/6W	
R33			RD14BB2C273J	RD 27K J 1/6W	
R34			RD14BB2C163J	RD 16K J 1/6W	
R35			RD14BB2C472J	RD 4.7K J 1/6W	
R36			RD14BB2C273J	RD 27K J 1/6W	
R37			RD14BB2C684J	RD 680K J 1/6W	
R38			RD14BB2C103J	RD 10K J 1/6W	
R39			RD14BB2C223J	RD 22K J 1/6W	
R40			RD14BB2C473J	RD 47K J 1/6W	
R41 ,42			RD14BB2C821J	RD 820 J 1/6W	
R43			RD14BB2C333J	RD 33K J 1/6W	
R44			RD14BB2C104J	RD 100K J 1/6W	
R45 ,46			RD14BB2C103J	RD 10K J 1/6W	
R47			RD14NB2E100J	RD 10 J 1/4W	
R51 -60			RD14BB2E471J	RD 470 J 1/4W	

Ref.No.	Add	New	Parts No.	Description	Destination
R101,102			RD14BB2C102J	RD 1.0K J 1/6W	
R103-108			RD14BB2C103J	RD 10K J 1/6W	
R109,110			RD14BB2C822J	RD 8.2K J 1/6W	
R111-118			RD14BB2C682J	RD 6.8K J 1/6W	
R119,120			RD14BB2C104J	RD 100K J 1/6W	
R121-124			RD14BB2C823J	RD 82K J 1/6W	
R125,126			RD14BB2C393J	RD 39K J 1/6W	
R127,128			RD14BB2C104J	RD 100K J 1/6W	
R129,130			RD14BB2C562J	RD 5.6K J 1/6W	
R131,132			RD14BB2C682J	RD 6.8K J 1/6W	
R133,134			RD14BB2C183J	RD 18K J 1/6W	
R136			RD14BB2C103J	RD 10K J 1/6W	
R138			RD14BB2C103J	RD 10K J 1/6W	
R139,140			RD14BB2C391J	RD 390 J 1/6W	
R141,142			RD14BB2C682J	RD 6.8K J 1/6W	
R143,144			RD14BB2C103J	RD 10K J 1/6W	
R145,146			RD14BB2C183J	RD 18K J 1/6W	
R147,148			RD14BB2C752J	RD 7.5K J 1/6W	
R149-152			RD14BB2C102J	RD 1.0K J 1/6W	
R153,154			RD14BB2C101J	RD 100 J 1/6W	
R155,156			RD14BB2C361J	RD 360 J 1/6W	
R157,158			RD14BB2C183J	RD 18K J 1/6W	
R159,160			RD14BB2C101J	RD 100 J 1/6W	
R161,162			RD14BB2C330J	RD 33 J 1/6W	
R201,202			RD14BB2C102J	RD 1.0K J 1/6W	
R203-208			RD14BB2C103J	RD 10K J 1/6W	
R209,210			RD14BB2C822J	RD 8.2K J 1/6W	
R211-218			RD14BB2C682J	RD 6.8K J 1/6W	
R219,220			RD14BB2C104J	RD 100K J 1/6W	
R221-224			RD14BB2C823J	RD 82K J 1/6W	
R225,226			RD14BB2C393J	RD 39K J 1/6W	
R227,228			RD14BB2C104J	RD 100K J 1/6W	
R229,230			RD14BB2C562J	RD 5.6K J 1/6W	
R231,232			RD14BB2C682J	RD 6.8K J 1/6W	
R233,234			RD14BB2C183J	RD 18K J 1/6W	
R236			RD14BB2C103J	RD 10K J 1/6W	
R238			RD14BB2C103J	RD 10K J 1/6W	
R239,240			RD14BB2C391J	RD 390 J 1/6W	
R241,242			RD14BB2C682J	RD 6.8K J 1/6W	
R243,244			RD14BB2C103J	RD 10K J 1/6W	
R245,246			RD14BB2C183J	RD 18K J 1/6W	
R247,248			RD14BB2C752J	RD 7.5K J 1/6W	
R249-252			RD14BB2C102J	RD 1.0K J 1/6W	
R253,254			RD14BB2C101J	RD 100 J 1/6W	
R255,256			RD14BB2C361J	RD 360 J 1/6W	
R257,258			RD14BB2C183J	RD 18K J 1/6W	
R259,260			RD14BB2C101J	RD 100 J 1/6W	
R261,262			RD14BB2C330J	RD 33 J 1/6W	
R301,302			RD14BB2C222J	RD 2.2K J 1/6W	
R303			RD14BB2C103J	RD 10K J 1/6W	
R304			RD14BB2C102J	RD 1.0K J 1/6W	
R305			RD14BB2C103J	RD 10K J 1/6W	
R306			RD14BB2C822J	RD 8.2K J 1/6W	
R307-310			RD14BB2C682J	RD 6.8K J 1/6W	
R311			RD14BB2C104J	RD 100K J 1/6W	

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PARTS LIST

✻ New Parts
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Ref.No.	Add	New	Parts No.	Description	Destination
R312-314			RD14BB2C103J	RD 10K J 1/6W	
R315			RD14BB2C104J	RD 100K J 1/6W	
R316			RD14BB2C473J	RD 47K J 1/6W	
R317			RD14BB2C152J	RD 1.5K J 1/6W	
R318,319			RD14BB2C332J	RD 3.3K J 1/6W	
R320			RD14BB2C512J	RD 5.1K J 1/6W	
R321			RD14BB2C223J	RD 22K J 1/6W	
R322			RD14BB2C391J	RD 390 J 1/6W	
R323			RD14BB2C562J	RD 5.6K J 1/6W	
R324			RD14BB2C472J	RD 4.7K J 1/6W	
R325			RD14BB2C222J	RD 2.2K J 1/6W	
R326			RD14BB2C822J	RD 8.2K J 1/6W	
R327			RD14BB2C183J	RD 18K J 1/6W	
R328			RD14BB2C752J	RD 7.5K J 1/6W	
R329			RD14BB2C101J	RD 100 J 1/6W	
R330,331			RD14BB2C122J	RD 1.2K J 1/6W	
R332			RD14BB2C331J	RD 330 J 1/6W	
R333			RD14BB2C183J	RD 18K J 1/6W	
R334			RD14BB2C101J	RD 100 J 1/6W	
R335			RD14BB2C680J	RD 68 J 1/6W	
R336			RD14BB2C103J	RD 10K J 1/6W	
R339			RD14BB2C100J	RD 10 J 1/6W	
R341-348			RD14BB2C102J	RD 1.0K J 1/6W	
R349-352			RD14BB2C222J	RD 2.2K J 1/6W	
R401,402			RD14BB2C392J	RD 3.9K J 1/6W	
R403			RD14BB2C152J	RD 1.5K J 1/6W	
R404			RD14BB2C471J	RD 470 J 1/6W	
R405,406			RD14NB2E101J	RD 100 J 1/4W	
R407			RD14NB2E271J	RD 270 J 1/4W	
R408-411			RD14NB2E100J	RD 10 J 1/4W	
R412,413			RD14BB2C132J	RD 1.3K J 1/6W	
R414,415			RD14BB2C471J	RD 470 J 1/6W	
R416-419			R92-2115-05	METAL FILM 0.1 J 2W	
VR1 -3			R31-0223-05	VARIABLE RESISTOR (10K,A)	
VR4		✻	R31-0229-05	VARIABLE RESISTOR (10K,C)	
VR401			R32-0030-05	SEMI FIXED VAR.RESISTOR (220)	
K1		✻	S76-0810-05	MAGNETIC RELAY	
S1 ,2			S31-2630-05	SLIDE SWITCH	
S3			S62-0845-05	SLIDE SWITCH	
S4			S62-0842-05	SLIDE SWITCH	
S5			S62-0845-05	SLIDE SWITCH	
D1 -4			RD8.2JS(B)	ZENER DIODE	
D5 -10			1SS133	DIODE	
D11			RD7.5JS(B)	ZENER DIODE	
D12			RD16JS(B2)	ZENER DIODE	
D13			RD7.5JS(B)	ZENER DIODE	
D14 -18			1SS133	DIODE	
D101-110			1SS133	DIODE	
D201-210			1SS133	DIODE	
D301-305			1SS133	DIODE	
D401,402			1SS133	DIODE	
IC1 -3			UPC4574C	IC(OP AMP X4)	
IC4			NJM2058D	IC(OP AMP X4)	
IC5			UPC4574C	IC(OP AMP X4)	

Ref.No.	Add	New	Parts No.	Description	Destination
IC6			UPC494C	IC(SWITCHING REGULATOR)	
Q1 -4			2SC945(A)(Q,P)	TRANSISTOR	
Q5			2SA733(A)(Q,P)	TRANSISTOR	
Q6 ,7			2SC945(A)(Q,P)	TRANSISTOR	
Q8 -11			2SA733(A)(Q,P)	TRANSISTOR	
Q12 ,13			2SC945(A)(Q,P)	TRANSISTOR	
Q14			2SA733(A)(Q,P)	TRANSISTOR	
Q101,102			2SC945(A)(Q,P)	TRANSISTOR	
Q103-106			2SA733(A)(Q,P)	TRANSISTOR	
Q107-110			2SC1845(F,E)	TRANSISTOR	
Q201,202			2SC945(A)(Q,P)	TRANSISTOR	
Q203-206			2SA733(A)(Q,P)	TRANSISTOR	
Q207-210			2SC1845(F,E)	TRANSISTOR	
Q301,302			2SA733(A)(Q,P)	TRANSISTOR	
Q303,304			2SC1845(F,E)	TRANSISTOR	
Q307			2SC945(A)(Q,P)	TRANSISTOR	
Q401			2SC4137(V,W)	TRANSISTOR	
Q402			2SC945(A)(Q,P)	TRANSISTOR	
Q403			2SA992(F,E)	TRANSISTOR	
Q404			2SC2590(Q,R)	TRANSISTOR	
Q405			2SA1110(Q,R)	TRANSISTOR	
Q406			2SC5100LB	TRANSISTOR	
Q407			2SA1908LB	TRANSISTOR	
Q408			2SC5100LB	TRANSISTOR	
Q409			2SA1908LB	TRANSISTOR	
TH1			PTH9M04BD222T	POSITIVE RESISTOR	

AMPLIFIER UNIT(X09-5330-10)

D19			B30-1460-05	LED(RED)		
C1			CE04DW1V100M	ELECTRO	10UF	35WV
C2 ,3			C90-2921-05	ELECTRO	3900UF	16WV
C4			CF92FV1H153J	MF-C	0.015UF	J
C5 ,6			CF92FV1H102J	MF-C	1000PF	J
C7 ,8		✻	C90-5306-05	ELECTRO	2200UF	50WV
C9			CE04DW1E470M	ELECTRO	47UF	25WV
C11 ,12			CF92FV1H102J	MF-C	1000PF	J
C13 ,14			C90-1616-05	ELECTRO	3300UF	35WV
C15			CE04DW1V101M	ELECTRO	100UF	35WV
C16			CE04DW1V100M	ELECTRO	10UF	35WV
C17			CE04DW1E101M	ELECTRO	100UF	25WV
C18			CE04DW1E470M	ELECTRO	47UF	25WV
C19			CF92FV1H473J	MF-C	0.047UF	J
C101,102			CE04DW1V100M	ELECTRO	10UF	35WV
C103,104			CF92FV1H103J	MF-C	0.010UF	J
C105-108			CF92FV1H472J	MF-C	4700PF	J
C109-112			CC45FSL1H101J	CERAMIC	100PF	J
C113,114			CF92FV1H473J	MF-C	0.047UF	J
C201,202			CE04DW1V100M	ELECTRO	10UF	35WV
C203,204			CF92FV1H103J	MF-C	0.010UF	J
C205-208			CF92FV1H472J	MF-C	4700PF	J
C209-212			CC45FSL1H101J	CERAMIC	100PF	J
C213,214			CF92FV1H473J	MF-C	0.047UF	J
C301			CF92FV1H473J	MF-C	0.047UF	J
CN1 -3			E40-4233-05	FLAT CABLE CONNECTOR (8P)		

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PARTS LIST

✻ New Parts
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Ref.No.	Add	New	Parts No.	Description	Destination
CN7 ,8			E40-3640-05	PIN ASSY (2P)	
J1		✻	E70-0828-05	SCREW TERMINAL BOARD (3P)	
J4		✻	E70-0829-05	SCREW TERMINAL BOARD (10P)	
J5			E70-0821-05	SCREW TERMINAL BOARD (8P)	
WH6		✻	E39-0339-05	WIRING HARNESS (6P)	
⚠ CN9 ,10			J13-0602-05	FUSE HOLDER (2P)	
L1 ,2			L33-1032-05	CHOKE COIL	
T1		✻	L19-0589-05	TRANSFORMER FOR CONVERTER	
T2		✻	L19-0588-05	TRANSFORMER FOR CONVERTER	
B	1B		N80-3010-45	PAN HEAD TAPTITE SCREW	
E	1B		N80-2008-45	PAN HEAD TAPTITE SCREW	
R1			RD14BB2C332J	RD 3.3K J 1/6W	
R2			RD14BB2C220J	RD 22 J 1/6W	
R3 ,4			RD14BB2C750J	RD 75 J 1/6W	
R5			RD14BB2C220J	RD 22 J 1/6W	
R6 ,7			RD14BB2C472J	RD 4.7K J 1/6W	
R8 -12			RD14DB2H100J	SMALL-R D 10 J 1/2W	
R13			RD14BB2C680J	RD 68 J 1/6W	
R15			RD14BB2C472J	RD 4.7K J 1/6W	
R16			RD14BB2C331J	RD 330 J 1/6W	
R17			RD14BB2C153J	RD 15K J 1/6W	
R18			RD14BB2C472J	RD 4.7K J 1/6W	
R19			RD14BB2C433J	RD 43K J 1/6W	
R20			RD14BB2C822J	RD 8.2K J 1/6W	
R21			RD14BB2C103J	RD 10K J 1/6W	
R22			RD14BB2C473J	RD 47K J 1/6W	
R23			RD14BB2C222J	RD 2.2K J 1/6W	
R24			RD14NB2E100J	RD 10 J 1/4W	
R25			RD14BB2C243J	RD 24K J 1/6W	
R26			RD14BB2C333J	RD 33K J 1/6W	
R27			RD14BB2C472J	RD 4.7K J 1/6W	
R28			RD14BB2C333J	RD 33K J 1/6W	
R101-104			RD14BB2C272J	RD 2.7K J 1/6W	
R105,106			RD14BB2C152J	RD 1.5K J 1/6W	
R107,108			RD14BB2C431J	RD 430 J 1/6W	
R109-112			RD14NB2E101J	RD 100 J 1/4W	
R113-116			RD14BB2C132J	RD 1.3K J 1/6W	
R117,118			RD14NB2E331J	RD 330 J 1/4W	
R119-122			RD14BB2C182J	RD 1.8K J 1/6W	
R123-126			R92-2115-05	METAL F ILM 0.1J 2W	
R127,128			RD14DB2H100J	SMALL-R D 10 J 1/2W	
R129,130			RD14BB2C473J	RD 47K J 1/6W	
R201-204			RD14BB2C272J	RD 2.7K J 1/6W	
R205,206			RD14BB2C152J	RD 1.5K J 1/6W	
R207,208			RD14BB2C431J	RD 430 J 1/6W	
R209-212			RD14NB2E101J	RD 100 J 1/4W	
R213-216			RD14BB2C132J	RD 1.3K J 1/6W	
R217,218			RD14NB2E331J	RD 330 J 1/4W	
R219-222			RD14BB2C182J	RD 1.8K J 1/6W	
R223-226			R92-2115-05	METAL F ILM 0.1J 2W	
R227,228			RD14DB2H100J	SMALL-R D 10 J 1/2W	
R229,230			RD14BB2C473J	RD 47K J 1/6W	
R301			RD14DB2H100J	SMALL-R D 10 J 1/2W	

Ref.No.	Add	New	Parts No.	Description	Destination
R302-345			RD14BB2E471J	RD 470 J 1/4W	
VR101,102			R32-0030-05	SEMI FIXED VAR.RESISTOR (220)	
VR201,202			R32-0030-05	SEMI FIXED VAR.RESISTOR (220)	
D1 ,2			1N5406-M	DIODE	
D3 ,4			1SS133	DIODE	
D5			FML22S✻A	DIODE	
D6			FML22R✻A	DIODE	
D7			FML22S✻A	DIODE	
D8			FML22R✻A	DIODE	
D9 -12			1SS133	DIODE	
D13			RD5.1JS(B)	ZENER DIODE	
D14			RD15JS(B)	ZENER DIODE	
D15 -18			1SS133	DIODE	
D20 ,21			1SS133	DIODE	
D23			RD15JS(B)	ZENER DIODE	
D24			1SS133	DIODE	
D101-108			1SS133	DIODE	
D201-208			1SS133	DIODE	
Q1 -6		✻	2SK2897-01MR-F	FET	
Q7			DTA124ESA	DIGITAL TRANSISTOR	
Q8 -11			2SC945(A)(Q,P)	TRANSISTOR	
Q101,102			2SC4137(V,W)	TRANSISTOR	
Q103,104			2SC945(A)(Q,P)	TRANSISTOR	
Q105,106			2SA992(F,E)	TRANSISTOR	
Q107,108			2SC1627A	TRANSISTOR	
Q109,110			2SA817A	TRANSISTOR	
Q111,112			2SC5100LB	TRANSISTOR	
Q113,114			2SA1908LB	TRANSISTOR	
Q201,202			2SC4137(V,W)	TRANSISTOR	
Q203,204			2SC945(A)(Q,P)	TRANSISTOR	
Q205,206			2SA992(F,E)	TRANSISTOR	
Q207,208			2SC1627A	TRANSISTOR	
Q209,210			2SA817A	TRANSISTOR	
Q211,212			2SC5100LB	TRANSISTOR	
Q213,214			2SA1908LB	TRANSISTOR	
TH1			PTH9L04BD222TS	POSITIVE RESISTOR	
TH2 ,3			PTH9M04BD222T	POSITIVE RESISTOR	

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⚠ indicates safety critical components.

KAC-859

SPECIFICATIONS

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Audio Section

Max Power Output(4Ω)
- 5-channel Mode .....80W X 4+ 240W X1
- 4-channel Mode .....80W X 2+ 240W X1 + 240W X1
- 3-channel Mode .....80W X 2+ 240W X1 + 240W X1

Rated Power Output(+B=14.4V)(4Ω)
- 5-channel Mode .....40W X 4 +120W X 1 (DIN 45324)
- 5-channel Mode .....40W X 4 +120W X 1 (20Hz~20kHz, less than 0.08% THD) + (20Hz~200Hz, less than 0.08% THD)
- 4-channel Mode ..... 40W X 2 +120W X 1 + 120W X 1 (1kHz, 0.08% THD) + (1kHz, 0.8% THD) + (100Hz, 0.08% THD)
- 3-channel Mode .....120W X 2 +120W X 1 (1kHz, 0.8% THD) + (100Hz, 0.08% THD)

Rated Power Output(+B=14.4V)(2Ω)
- 5-channel Mode .....60W X 4 +150W X 1 (1kHz, 0.8% THD) + (100Hz, 0.8% THD)

Frequency Response (0dB, -3dB) .....5Hz ~ 50kHz
Signal to Noise Ratio.....100dB
Sensitivity (Max.).....0.2V(Rated Output)
Sensitivity (Min.).....5.0V(Rated Output)
Input Impedance 10kΩ
High-Pass Filter (A, B channel).....80Hz, 150Hz(12dB/oct.)
Low-Pass Filter (SUB channel) .....50Hz ~ 200Hz(18dB/oct.)
Infrasonic Filter (SUB channel).....15Hz(18dB/oct.)

General

Operating Voltage.....14.4V(11V ~ 16V allowable)
Current consumption (Rated Power).....48A
Dimensions (W X H X D) .....290 x 60 x 320 mm (11-7/16 x 2-3/8 x 12-5/8 inch)
Weight 5.42kg

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

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